

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 10/585,554  
Source: JPNP  
Date Processed by STIC: 7/19/06

***ENTERED***



IFWP

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/585,554

DATE: 07/19/2006

TIME: 08:27:34

Input Set : A:\12136.0003USWO-Sequence Listing.txt

Output Set: N:\CRF4\07192006\J585554.raw

3 <110> APPLICANT: Idaho Research Foundation, Inc.  
 5 <120> TITLE OF INVENTION: METHODS FOR REDUCING SOMATIC CELL COUNT IN MILK  
 7 <130> FILE REFERENCE: 12136.0003USWO  
 C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/585,554 (Pg. 6)  
 10 <141> CURRENT FILING DATE: 2006-07-06  
 12 <150> PRIOR APPLICATION NUMBER: PCT/US2005/000482  
 13 <151> PRIOR FILING DATE: 2005-01-07  
 15 <150> PRIOR APPLICATION NUMBER: US 60/535,454  
 16 <151> PRIOR FILING DATE: 2004-01-08  
 18 <160> NUMBER OF SEQ ID NOS: 19  
 20 <170> SOFTWARE: PatentIn version 3.3  
 22 <210> SEQ ID NO: 1  
 23 <211> LENGTH: 18  
 24 <212> TYPE: PRT  
 25 <213> ORGANISM: Staphylococcus aureus  
 27 <400> SEQUENCE: 1  
 29 Cys Tyr Phe Ser Ser Lys Asp Asn Val Gly Lys Val Thr Gly Gly Lys  
 30 1 5 10 15  
 33 Thr Cys  
 37 <210> SEQ ID NO: 2  
 38 <211> LENGTH: 54  
 39 <212> TYPE: DNA  
 40 <213> ORGANISM: Staphylococcus aureus  
 42 <400> SEQUENCE: 2  
 43 tgctatttt catccaaaga taatgttaggt aaagttacag gtggcaaaac ttgt 54  
 46 <210> SEQ ID NO: 3  
 47 <211> LENGTH: 14  
 48 <212> TYPE: PRT  
 49 <213> ORGANISM: Artificial  
 51 <220> FEATURE:  
 52 <223> OTHER INFORMATION: Synthetic  
 54 <400> SEQUENCE: 3  
 56 Cys Tyr Phe Ser Ser Lys Asp Asn Ala Gly Gly Lys Thr Cys  
 57 1 5 10  
 60 <210> SEQ ID NO: 4  
 61 <211> LENGTH: 42  
 62 <212> TYPE: DNA  
 63 <213> ORGANISM: Artificial  
 65 <220> FEATURE:  
 66 <223> OTHER INFORMATION: Synthetic  
 68 <400> SEQUENCE: 4  
 69 tgctatttt catccaaaga taatgcagg ggcaaaaactt gt 42  
 72 <210> SEQ ID NO: 5

## RAW SEQUENCE LISTING

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```

73 <211> LENGTH: 9
74 <212> TYPE: PRT
75 <213> ORGANISM: Artificial
77 <220> FEATURE:
78 <223> OTHER INFORMATION: Synthetic
80 <400> SEQUENCE: 5
82 Cys Tyr Phe Ser Ser Gly Lys Thr Cys
83 1           5
86 <210> SEQ ID NO: 6
87 <211> LENGTH: 27
88 <212> TYPE: DNA
89 <213> ORGANISM: Artificial
91 <220> FEATURE:
92 <223> OTHER INFORMATION: Synthetic
94 <400> SEQUENCE: 6
95 tgctatttt catccggcaa aacttgt          27
98 <210> SEQ ID NO: 7
99 <211> LENGTH: 6
100 <212> TYPE: PRT
101 <213> ORGANISM: Artificial
103 <220> FEATURE:
104 <223> OTHER INFORMATION: Synthetic
106 <400> SEQUENCE: 7
108 Cys Cys Gly Lys Thr Cys
109 1           5
112 <210> SEQ ID NO: 8
113 <211> LENGTH: 18
114 <212> TYPE: DNA
115 <213> ORGANISM: Artificial
117 <220> FEATURE:
118 <223> OTHER INFORMATION: Synthetic
120 <400> SEQUENCE: 8
121 tgctgtggca aaacttgt          18
124 <210> SEQ ID NO: 9
125 <211> LENGTH: 240
126 <212> TYPE: PRT
127 <213> ORGANISM: Staphylococcus aureus
130 <220> FEATURE:
131 <221> NAME/KEY: misc_feature
132 <222> LOCATION: (240)..(240)
133 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
135 <400> SEQUENCE: 9
137 Glu Ser Gln Pro Asp Pro Thr Pro Asp Glu Leu His Lys Ala Ser Lys
138 1           5           10           15
141 Phe Thr Gly Leu Met Glu Asn Met Lys Val Leu Tyr Asp Asp His Tyr
142           20           25           30
145 Val Ser Ala Thr Lys Val Lys Ser Val Asp Lys Phe Leu Ala His Asp
146           35           40           45
149 Leu Ile Tyr Asn Ile Ser Asp Lys Lys Leu Lys Asn Tyr Asp Lys Val

```

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150      50          55          60
153 Lys Thr Glu Leu Leu Asn Glu Gly Leu Ala Lys Lys Tyr Lys Asp Glu
154 65           70           75           80
157 Val Val Asp Val Tyr Gly Ser Asn Tyr Tyr Val Asn Cys Tyr Phe Ser
158           85           90           95
161 Ser Lys Asp Asn Val Gly Lys Val Thr Gly Gly Lys Thr Cys Met Tyr
162           100          105          110
165 Gly Gly Ile Thr Lys His Glu Gly Asn His Phe Asp Asn Gly Asn Leu
166           115          120          125
169 Gln Asn Val Leu Ile Arg Val Tyr Glu Asn Lys Arg Asn Thr Ile Ser
170           130          135          140
173 Phe Glu Val Gln Thr Asp Lys Lys Ser Val Thr Ala Gln Glu Leu Asp
174 145           150           155           160
177 Ile Lys Ala Arg Asn Phe Leu Ile Asn Lys Lys Asn Leu Tyr Glu Phe
178           165           170           175
181 Asn Ser Ser Pro Tyr Glu Thr Gly Tyr Ile Lys Phe Ile Glu Asn Asn
182           180           185           190
185 Gly Asn Thr Phe Trp Tyr Asp Met Met Pro Ala Pro Gly Asp Lys Phe
186           195           200           205
189 Asp Gln Ser Lys Tyr Leu Met Met Tyr Asn Asp Asn Lys Thr Val Asp
190           210           215           220
W--> 193 Ser Lys Ser Val Lys Ile Glu Val His Leu Thr Thr Lys Asn Gly Xaa
194 225           230           235           240
197 <210> SEQ ID NO: 10
198 <211> LENGTH: 240
199 <212> TYPE: PRT
200 <213> ORGANISM: Staphylococcus aureus
203 <220> FEATURE:
204 <221> NAME/KEY: misc_feature
205 <222> LOCATION: (240)..(240)
206 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
208 <400> SEQUENCE: 10
210 Glu Ser Gln Pro Asp Pro Thr Pro Asp Glu Leu His Lys Ser Ser Glu
211 1           5           10           15
214 Phe Thr Gly Thr Met Gly Asn Met Lys Tyr Leu Tyr Asp Asp His Tyr
215           20           25           30
218 Val Ser Ala Thr Lys Val Met Ser Val Asp Lys Phe Leu Ala His Asp
219           35           40           45
222 Leu Ile Tyr Asn Ile Ser Asp Lys Lys Leu Lys Asn Tyr Asp Lys Val
223           50           55           60
226 Lys Thr Glu Leu Leu Asn Glu Asp Leu Ala Lys Lys Tyr Lys Asp Glu
227 65           70           75           80
230 Val Val Asp Val Tyr Gly Ser Asn Tyr Tyr Val Asn Cys Tyr Phe Ser
231           85           90           95
234 Ser Lys Asp Asn Val Gly Lys Val Thr Gly Gly Lys Thr Cys Met Tyr
235           100          105          110
238 Gly Gly Ile Thr Lys His Glu Gly Asn His Phe Asp Asn Gly Asn Leu
239           115          120          125
242 Gln Asn Val Leu Ile Arg Val Tyr Glu Asn Lys Arg Asn Thr Ile Ser

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243      130          135          140
246 Phe Glu Val Gln Thr Asp Lys Lys Ser Val Thr Ala Gln Glu Leu Asp
247 145          150          155          160
250 Ile Lys Ala Arg Asn Phe Leu Ile Asn Lys Lys Asn Leu Tyr Glu Phe
251          165          170          175
254 Asn Ser Ser Pro Tyr Glu Thr Gly Tyr Ile Lys Phe Ile Glu Asn Asn
255          180          185          190
258 Gly Asn Thr Phe Gln Tyr Asp Met Met Pro Ala Pro Gly Asp Lys Phe
259          195          200          205
262 Asp Gln Ser Lys Tyr Leu Met Met Tyr Asn Asp Asn Lys Thr Val Asp
263          210          215          220
W--> 266 Ser Lys Ser Val Lys Ile Glu Val His Leu Thr Thr Lys Asn Gly Xaa
267 225          230          235          240
270 <210> SEQ ID NO: 11
271 <211> LENGTH: 240
272 <212> TYPE: PRT
273 <213> ORGANISM: Staphylococcus aureus
276 <220> FEATURE:
277 <221> NAME/KEY: misc_feature
278 <222> LOCATION: (240)..(240)
279 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
281 <400> SEQUENCE: 11
283 Glu Ser Gln Pro Asp Pro Met Pro Asp Asp Leu His Lys Ser Ser Glu
284 1          5          10          15
287 Phe Thr Gly Thr Met Gly Asn Met Lys Tyr Leu Tyr Asp Asp His Tyr
288          20          25          30
291 Val Ser Ala Thr Lys Val Lys Ser Val Asp Lys Phe Leu Ala His Asp
292          35          40          45
295 Leu Ile Tyr Asn Ile Ser Asp Lys Lys Leu Lys Asn Tyr Asp Lys Val
296          50          55          60
299 Lys Thr Glu Leu Leu Asn Glu Asp Leu Ala Lys Lys Tyr Lys Asp Glu
300 65          70          75          80
303 Val Val Asp Val Tyr Gly Ser Asn Tyr Tyr Val Asn Cys Tyr Phe Ser
304          85          90          95
307 Ser Lys Asp Asn Val Gly Lys Val Thr Gly Gly Lys Thr Cys Met Tyr
308          100         105         110
311 Gly Gly Ile Thr Lys His Glu Gly Asn His Phe Asp Asn Gly Asn Leu
312          115         120         125
315 Gln Asn Val Leu Val Arg Val Tyr Glu Asn Lys Arg Asn Thr Ile Ser
316          130         135         140
319 Phe Glu Val Gln Thr Asp Lys Lys Ser Val Thr Ala Gln Glu Leu Asp
320 145          150          155          160
323 Ile Lys Ala Arg Asn Phe Leu Ile Asn Lys Lys Asn Leu Tyr Glu Phe
324          165          170          175
327 Asn Ser Ser Pro Tyr Glu Thr Gly Tyr Ile Lys Phe Ile Glu Asn Asn
328          180          185          190
331 Gly Asn Thr Phe Gln Tyr Asp Met Met Pro Ala Pro Gly Asp Lys Phe
332          195          200          205
335 Asp Gln Ser Lys Tyr Leu Met Met Tyr Asn Asp Asn Lys Thr Val Asp

```

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Input Set : A:\12136.0003USWO-Sequence Listing.txt  
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336	210	215	220
W--> 339	Ser Lys Ser Val Lys Ile Glu Val His Leu Thr Thr Lys Asn Gly Xaa		
340	225	230	235
343	<210> SEQ ID NO: 12		
344	<211> LENGTH: 240		
345	<212> TYPE: PRT		
346	<213> ORGANISM: Staphylococcus aureus		
349	<220> FEATURE:		
350	<221> NAME/KEY: misc_feature		
351	<222> LOCATION: (240)..(240)		
352	<223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid		
354	<400> SEQUENCE: 12		
356	Glu Ser Gln Pro Asp Pro Met Pro Asp Asp Leu His Lys Ser Ser Glu		
357	1	5	10
360	Phe Thr Gly Thr Met Gly Asn Met Lys Tyr Leu Tyr Asp Asp His Tyr		
361	20	25	30
364	Val Ser Ala Thr Lys Val Lys Ser Val Asp Lys Phe Leu Ala His Asp		
365	35	40	45
368	Leu Ile Tyr Asn Ile Asn Asp Lys Lys Leu Asn Asn Tyr Asp Lys Val		
369	50	55	60
372	Lys Thr Glu Leu Leu Asn Glu Asp Leu Ala Asn Lys Tyr Lys Asp Glu		
373	65	70	75
376	80		
377	Val Val Asp Val Tyr Gly Ser Asn Tyr Tyr Val Asn Cys Tyr Phe Ser		
378	85	90	95
380	Ser Lys Asp Asn Val Gly Lys Val Thr Ser Gly Lys Thr Cys Met Tyr		
381	100	105	110
384	Gly Gly Ile Thr Lys His Glu Gly Asn His Phe Asp Asn Gly Asn Leu		
385	115	120	125
388	Gln Asn Val Leu Ile Arg Val Tyr Glu Asn Lys Arg Asn Thr Ile Ser		
389	130	135	140
392	Phe Glu Val Gln Thr Asp Lys Lys Ser Val Thr Ala Gln Glu Leu Asp		
393	145	150	155
396	160		
397	Ile Lys Ala Arg Asn Phe Leu Ile Asn Lys Lys Asn Leu Tyr Glu Phe		
400	165	170	175
401	180	185	190
404	Asn Ser Ser Pro Tyr Glu Thr Gly Tyr Ile Lys Phe Ile Glu Ser Asn		
405	195	200	205
408	Gly Asn Thr Phe Trp Tyr Asp Met Met Pro Ala Pro Gly Asp Lys Phe		
409	210	215	220
W--> 412	Ser Lys Ser Val Lys Ile Glu Val His Leu Thr Thr Lys Asn Gly Xaa		
413	225	230	235
416	<210> SEQ ID NO: 13		
417	<211> LENGTH: 240		
418	<212> TYPE: PRT		
419	<213> ORGANISM: Staphylococcus aureus		
422	<220> FEATURE:		
423	<221> NAME/KEY: misc_feature		
424	<222> LOCATION: (240)..(240)		

RAW SEQUENCE LISTING ERROR SUMMARY                    DATE: 07/19/2006  
PATENT APPLICATION: US/10/585,554                    TIME: 08:27:35

Input Set : A:\12136.0003USWO-Sequence Listing.txt  
Output Set: N:\CRF4\07192006\J585554.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:9; Xaa Pos. 240 ✓  
Seq#:10; Xaa Pos. 240 ✓  
Seq#:11; Xaa Pos. 240 ✓  
Seq#:12; Xaa Pos. 240 ✓  
Seq#:13; Xaa Pos. 240 ✓  
Seq#:14; Xaa Pos. 240 ✓  
Seq#:15; Xaa Pos. 240  
Seq#:16; Xaa Pos. 240  
Seq#:17; Xaa Pos. 228  
Seq#:18; Xaa Pos. 231  
Seq#:19; Xaa Pos. 236

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete,  
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:3,4,5,6,7,8,17,18,19

**VERIFICATION SUMMARY**

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DATE: 07/19/2006

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Input Set : A:\12136.0003USWO-Sequence Listing.txt  
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L:9 M:270 C: Current Application Number differs, Replaced Current Application Number  
L:193 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:224  
L:266 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:224  
L:339 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:224  
L:412 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:224  
L:485 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:224  
L:558 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:224  
L:631 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:224  
L:704 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:224  
L:780 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:224  
L:856 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:224  
L:932 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:224